

**This application is submitted in the name of Inventor Michael Owen.**

## SPECIFICATION

### BOARD SYSTEM

#### PRIORITY CLAIM

**[0001]** This application claims priority to United States Provisional Application Serial No. 60/531,271, filed on December 18, 2003.

#### BACKGROUND

**[0002]** The present invention relates to a system for displaying a board and housing several boards. More particularly, the present invention relates to a board system that provides for the easy removal of several boards from a storage device.

**[0003]** The use of erasable boards for presentations is known. Such boards include chalkboards, such as blackboards and greenboards, and white boards. For ease in presenting and storing data, individuals have come to rely on several boards instead of just one board fastened to a wall. The prior art has presented several options for a user of boards. In United States Patent No. 3,531,898 to Facemire, a plurality of display boards are suspended for sliding along a track. In

United States Patent No. 3,914,890 to Behlen, Jr., a plurality of display panels or signs are mountable within tracks formed in parallel upstanding side posts. In United States Patent No. 4,716,693 to Webster, the structure includes details of roller assemblies used for movably supporting a sign or panel along a track. In United States Patent No. 6,139,331 to Owen, a board base apparatus provided both storage and display of board panels using slots or tracks.

[0004] Each of these prior art storage and display units includes tracks in order to store the boards. However, inserting and removing the boards from the units can be difficult because each board must fit into a narrow track in order to properly hold the board. These units are difficult to work with and are expensive.

[0005] What is needed in the art is a board system including a storage device that provides an easy means for removing and replacing several boards.

### SUMMARY

[0006] A board system is disclosed. The board system comprises at least one board panel having a body encased by a trim having an interior edge and an exterior edge opposite the interior edge. The at least one board panel includes at least one locking mechanism disposed on the trim and configured to attach to another board panel. The at least one fin is coupled to the interior edge, and the at

least one fixture is coupled to the exterior edge. The board system also comprises a base station configured to receive the at least one board panel. The base station has a first cross member coupled to a first support member and a second support member, and a second cross member coupled to the first support member and the second support member. The second cross member has at least one arm. The second cross member rotatably attaches to the first support member and the second support member.

[0007] A board panel is disclosed. The board panel comprises a body. The trim encases the body. The trim has an interior edge and an exterior edge opposite the interior edge. The board panel also comprises at least one fin coupled to the interior edge.

[0008] A base station for holding board panels is also disclosed. The base station comprises a first cross member coupled to a first support member and a second support member. The base station also comprises a second cross member coupled to the first support member and the second support member. The second cross member has at least one arm. The second cross member rotatably attaches to the first support member and the second support member.

**BRIEF DESCRIPTION OF THE FIGURES**

[0009] Referring now to the figures, wherein like elements are numbered alike:

[0010] FIG. 1 is a frontal view of an exemplary board panel;

[0011] FIG. 2 is a partial cutout of a corner of an exemplary board panel;

[0012] FIG. 3 is a partial cutout of a corner of an exemplary board panel;

[0013] FIG. 4 is a frontal view of several exemplary board panels disposed in an exemplary storage rack;

[0014] FIG. 5 is a frontal view of an exemplary storage rack; and

[0015] FIG. 6 is a partial frontal view of an exemplary accessory tray.

**DETAILED DESCRIPTION**

[0016] Persons of ordinary skill in the art will realize that the following disclosure is illustrative only and not in any way limiting. Other embodiments of

the invention will readily suggest themselves to such skilled persons having the benefit of this disclosure.

**[0017]** This disclosure describes a board system comprising at least one board panel and a base station configured to receive the at least one board panel. The board panel has at least one locking mechanism configured to attach to another board panel. The board panel has at least one fin for holding papers and calendars. The board panel has at least one fixture to provide an attachment point to the base station. The base station can have rotatable arms or a rotatable cross members. The base station can also have an adjustable cross member.

**[0018]** Referring to FIG. 1, an exemplary board panel 10 is illustrated. Although a rectangular shape is illustrated, other shapes of board panels are contemplated, including squares, circles, ovals, octagons, polygons and the like. The board panel 10 comprises a lightweight sub-straight material, such as paper, cardboard, metal, plastic, and combinations thereof, and the like. The board panel 10 can be a white board that comprises a laminate or magnetic film or spray applied for use in dry erase applications. Although a white board is preferred, other types of presentation boards (such as chalk boards, cork boards, magnetic boards, and the like) are also contemplated for use with the board system.

**[0019]** The board panel 10 can have a trim 20 with corner fasteners 18 encasing the board material. The trim 20 and corner fasteners 18 can be made from a material that is sturdy enough to support the board material, as well as the functions of the user of the board panel 10. Preferred materials include plastic, metal, wood, and the like. The board panel 10 can also be two-sided to allow for use of the front side 12 or back side 14 of the board panel 10. The board panel 10 can be of any size for use in presentations or for other office or home use.

**[0020]** Still referring to FIG. 1, the board panel 10 has mounting fins (or fins) 16 along at least two sides of the board panel 10. The mounting fins 16 are disposed into the inside edge of the trim 20 of the board panel 10 in the corners or along the edges of the board panel 10. The mounting fins 16 can be molded into the trim 20 or separately attached during manufacturing of the board panel 10. The mounting fins 16 can be disposed on the front side 12, the back side 14, or both sides of the board panel 10. The mounting fins 16 comprise the same material as the trim, or of plastic, metal, wood, and the like. The mounting fins 16 are designed to hold paper, posters, presentations, placards, signage, wall planners, calendars, pictures, and the like.

**[0021]** Still referring to FIG. 1, the board panel 10 can have a mounting block 22 that can be attached to the trim 20 for matingly mounting the board panel 10 to

a mounting block receiver (not shown) disposed on a wall or other desired place. The mounting block 22 comprises a material sturdy enough to support the weight of the board panels, such as plastic, metal, wood, and the like. The mounting block 22 can be mounted using screws, nails, adhesive tapes, glues, conventional mounting methods, adjustable workstation mounting clips, and the like.

[0022] As illustrated in FIG. 1, a handle 24 can be attached to the trim 20 for ease in handling the board panel 10. The handle 24 comprises a material sturdy enough to support the weight of the board panels, such as plastic, metal, wood, and the like. The handle 24 can be colored, textured, patterned, and combinations thereof, and the like, for identification purposes. In one embodiment, the handle 24 can be shaped so as to rest snugly or snap into place on the mounting block receiver for hanging on a wall. The shape of the handle 24 can be designed similar to that of the mounting block 22 in order to provide a snug fit. In another embodiment, the handle 24 can also be designed for mounting to a wall using the above-referenced mounting methods. In yet another embodiment, the handle 24 can be a flexible handle for easy gripping by the user.

[0023] As illustrated in FIG. 2, a portion of board panel 10 having trim 20 is illustrated and a fixture 28 for attachment to a channel 26 is illustrated. The channel 26 is disposed in the outside surface of the trim 20 of the board panel 10.

The fixture 28 is configured to be snugly attached to the channel 26, preferably at the bottom portion 30 of the board panel 10. Connection of a fixture 28 at any other portion of the channel 26 of the board panel 10 is also contemplated. The fixture 28 comprises plastic, metal, wood, and the like. The fixture 28 can be colored, textured, patterned, and combinations thereof, and the like, for identification purposes. The fixture 28 acts as a guide for disposing the board panel 10 into and out of a storage rack 34. The fixture 28 also provides a means for stabilizing the board panel 10 on the storage rack 34.

[0024] Referring now to FIG. 3, a portion of board panel 10 is illustrated. A locking mechanism 30 is disposed on the trim 20 of the board panel 10 to connect several board panels in a storage rack 34. A preferred locking mechanism 30 is magnets. Other locking mechanisms are contemplated, including metal clips, plastic clips, interlocking mechanisms, fabric, hook and loop fastener, and the like. The locking mechanisms 30 can preferably be disposed in at least one corner of the board panel 10. The locking mechanisms 30 can be disposed in all four corners of the board panel 10 or at any point along the board panel 10 as long as the position of the locking mechanisms 30 will ensure that board panel 10 will be held in place. An advantage to disposing the locking mechanisms 30 in the corners of the board panel is so the locking mechanisms 30 do not block space for using the board panel system. When using magnets, the magnets are assembled to



the board panel 10 in order for the magnet polarity to always be able to attract other magnets (or metal) to assemble boards together. Board panels 10 can be joined together at an interlocking point (i.e., the attraction of the magnets).

[0025] The board panel 10 can be connected with other board panels 32, 36 in a storage rack (or base station) 34 as illustrated in FIG. 4. FIG. 5 illustrates the storage rack 34 without any board panels 10. The storage rack 34 comprises a material that can support the weight of several board panels such as plastic, metal, wood, and the like. The storage rack 34 comprises two support members 38, 40 interconnected with two cross members 42, 44. The top cross member 42 can be adjustable to compensate for different sized board panels. The bottom cross member 44 of the storage rack 34 can have arms 46, 48 that support the board panels 10. The bottom cross member 44 can rotate to lock into position using conventional spring loaded button locking mechanisms 50, 52. Preferably, the bottom cross member 44 locks into place at about a 90° angle. The bottom cross member 44 can be rotated such that the arms 46, 48 are in a vertical position to allow for the storage rack 34 to lie flat for shipping or storage.

[0026] It is also contemplated that the arms 46, 48 can be disposed on a stationary bottom cross member 44 and have a hinge (not shown) for folding the

arms 46, 48. This embodiment would also allow for the storage rack to lie flat for shipping or storage.

[0027] As illustrated in FIG. 6, an accessory tray 54 can be attached to the arms 46, 48 of the storage rack 34 in order to hold markers, erasers, pens, tacks, magnets, and the like, for use with the desired board panels. The accessory tray 54 comprises a material similar to that of the storage rack 34 including plastic, metal, wood, and the like. Preferably, the accessory tray 54 comprises a metal tray 56 having two joints 58 disposed on either end of the accessory tray 54. The joints 58 are configured to snap or rest on the arms 46, 48 of the storage rack 34. Although two joints 58 are described, the use of only one joint 58 to attach the accessory tray 54 is also contemplated. The accessory tray 54 can easily be attached to or removed from the storage rack 34.

[0028] The storage rack 34 can be mounted to a wall or workstation using the above-referenced mounting mechanisms or can be placed on a standing unit (i.e., an easel) or pedestal (stationary or mobile) for portability. It is also contemplated that the storage rack 34 can have another support member (not shown) that is configured to allow the storage rack 34 to rest, free standing on the floor or ground.

**[0029]** The board system provides for a user to easily select a desired board panel by grasping the handle, separating the panels from the locking mechanisms, pulling the board from the storage rack and sliding the board panel from the storage rack. To return the board panel to the storage rack, a user would slide the panel back into position in the rack, rest the fixtures onto the storage rack arms, and re-engage the locking mechanisms to hold the board panel in place in the storage rack.

**[0030]** While the invention has been described with reference to an exemplary embodiment, it will be understood by those skilled in the art that various changes may be made and equivalents may be substituted for elements thereof without departing from the scope of the invention. In addition, many modifications may be made to adapt a particular situation or material to the teachings without departing from the essential scope thereof. Therefore, it is intended that the invention not be limited to the particular embodiment disclosed as the best mode contemplated for carrying out this invention, but that the invention will include all embodiments falling within the scope of the appended claims.

**[0031]** What is claimed is: